

## **REMARKS**

Applicant seeks amendment of claims 1-4, 8 and 9, entry of new claims 29-34, and nonpredjudicial cancellation of claims 5-7 and 10-11. Claims 12-28 were previously cancelled.

### **Claim Rejections - 35 U.S.C. § 102**

The Examiner has rejected claims 1-11 under 35 U.S.C. § 102(a) as being anticipated by Xiang et al. (US Patent 6,586,808).

### **Amended Claims**

As amended, Applicant's claim 1 describes *n-type* (NMOS) transistors with a gate electrode having sidewall portions and a central portion, wherein the *central portion* has a work function *which is higher than* the work function of the *sidewall portions*. In contrast, Applicant understands Xiang to disclose *n-type* devices where the "*center gate electrode portion* has a *lower* work function than the material of the *lateral gate electrode portions*." (See Xiang, Col 4, ln 29-32). Therefore, it is Applicant's position that claim 1, as amended, is not anticipated by Xiang. Furthermore, the amendment to claim 1 has clear and unambiguous support in Applicant's original disclosure, as Applicant specifies the *outside portions* of the *n-type* transistor to be "*formed of a material having a work function which is less than the work function of the material forming the central portion of the gate electrode*" (Applicant's paragraph [0012 and 0013]). Dependant claims 2, 4, 8, and 9 have been amended to retain a proper dependency upon amended claim 1 and are also not anticipated by Xiang for at least the same reasons as claim 1. On this basis, Applicant respectfully requests removal of the 35 U.S.C. 102(a) rejection of claims 1-4, 8 and 9.

### **New Claims 29-34**

Applicant has added new independent claim 29, along with dependant claims 30-34, describing *p-type* (PMOS) transistors with a gate electrode having sidewall portions and a central portion, wherein the *central portion* has a *lower* work function *than* the work

function of the *sidewall portions*. These claimed features are also distinguished from Xiang because it is Applicant's understanding that Xiang discloses a PMOS device where the "center gate electrode portion has a *higher* work function than the material of the *lateral gate electrode portions*" (Xiang, Col 4, lns 32-35). Therefore, it is Applicant's position that new independent claim 29 is not anticipated by Xiang. Furthermore, new claim 29 is clearly and unambiguously supported in the Applicant's original disclosure (Applicant's paragraph [0014]). Noting new claims 30-34 depend upon claim 29, Applicant respectfully submits that new claims 30-34 are likewise not anticipated in view of the cited reference.

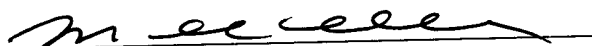
Applicant respectfully submits that in view of the arguments set forth herein, the applicable rejections have been overcome and the present application is in condition for allowance.

Pursuant to 37 C.F.R. 1.136(a)(3), applicant(s) hereby request and authorize the U.S. Patent and Trademark Office to (1) treat any concurrent or future reply that requires a petition for extension of time as incorporating a petition for extension of time for the appropriate length of time and (2) charge all required fees, including extension of time fees and fees under 37 C.F.R. 1.16 and 1.17, to Deposit Account No. 02-2666.

Respectfully submitted,

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